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# The Psychology of Own Versus Others' Treatment: Self-Oriented and Other-Oriented Effects on Perceptions of Procedural Justice

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# The Psychology of Own Versus Others' Treatment: Self-Oriented and Other-Oriented Effects on Perceptions of Procedural Justice

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*This article focuses on how people interpret their own versus others' treatment. Two experiments investigate how perceived procedural justice is affected by procedures that are experienced personally versus those seen to have been experienced by others. The studies show that, at least under some conditions, the treatment of others is as potent a consideration in justice judgments as is one's own treatment. These findings are contrasted with previous insights into the psychology of social justice in general and procedural justice in particular.*

A persistent and important question in the psychology of social justice concerns the reactions that people show after having witnessed fair or unfair treatment. We start from the premise that fair treatment and related justice processes play a crucial role in various important domains of social behavior. How people are treated—especially whether they feel they have received procedural justice—can exert strong effects on a variety of beliefs, feelings, attitudes, and behaviors (see, e.g., Brockner & Wiesenfeld, 1996; Cropanzano & Greenberg, 1997; Lind & Tyler, 1988; Tyler & Lind, 1992). Folger (1984) has even argued that "the importance of justice cannot be overstated" (p. ix). Being treated fairly typically leads to things such as higher commitment to the organization or institution within which the treatment is experienced, more prosocial citizenship behavior (Folger & Cropanzano, 1998), and greater acceptance of authorities (e.g., Lind, Kulik, Ambrose, & De Vera Park, 1993). People who experience unfair treatment, on the other hand, are more likely to leave their jobs, show lower levels of commitment, and may even start behaving in antinormative or illegal ways (Greenberg, 1993; Tyler, 1990). Therefore, understanding what leads people to believe a given procedure or authority is just and fair is a key issue for understanding some very important aspects of social behavior (Cropanzano & Greenberg, 1997; Folger & Cropanzano, 1998).

We hope to provide insight into the psychology of procedural justice by focusing on the extent to which people's perceptions of procedural fairness are affected by whether they themselves or someone else experienced fair or unfair procedures. In other words, we want to explore self- and other-oriented effects on perceived procedural justice. It is important to investigate self- and other-oriented concerns in procedural justice because a great deal of the information that one encounters about the fairness of a given procedure or authority is not gathered firsthand but is instead encountered in the form of reports or observations of others' treatment (Lind, Kray, & Thompson, 1998). If we are to understand how people generate fairness judgments, we must understand how they integrate their own personal experiences with the experiences of others. With the exception of a few very

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early studies of procedural fairness judgments and a few very recent studies, most of the research literature on the psychology of procedural fairness has focused on the impact of personal experience on fairness judgments. Thus, we have a very rich understanding of what it is that makes people feel that their own treatment is fair or unfair, but we know relatively little about what makes them incorporate the treatment of others in their judgments of overall fairness.

This in turn means that we are unable to answer some of the most basic questions with respect to what is fair from a psychological perspective. At the most basic level, we do not know whether concerns about procedural justice, one of the most powerful dimensions of justice judgments (Lind & Tyler, 1988), are primarily motivated by egocentric or self-oriented considerations or whether judgments of the fairness of process incorporate also other-oriented considerations. This question—whether justice is fundamentally egocentric—has stimulated huge debates in various disciplines, although consistent evidence on this issue is scarce. For example, some of the pioneering studies by Thibaut and Walker (1975) explicitly addressed this issue by including not only recipients of the procedure but also observers of the same procedures in their experiments. Their work showed some intriguing differences in the reactions of those who experienced procedures and those who only watched others experience the procedures: Participants in their studies were more sensitive to nuances of procedure than were observers, but observers did show differences in their judgments of the fairness of procedures that they did not experience (see, e.g., LaTour, 1978; Walker, LaTour, Lind, & Thibaut, 1974; Walker, Lind, & Thibaut, 1979). Until very recently, however, few researchers pursued this issue.

The recent studies that do look at this issue provide contradictory results with respect to whether procedural justice judgments are strongly affected by self-oriented biases. For example, Huo (1999) found, when she asked people to what extent persons from an outgroup deserve fair treatment, that these judgments were not much affected by whether the recipients belonged to an outgroup whose norms and values were compatible with or opposed to the norms and values of the respondents' ingroup. Huo suggested that this seems to imply that people feel everyone is entitled to fair procedure, but she noted that future research should try to specify the conditions under which social identity or group interests have an effect on procedural entitlement beliefs. Similarly, Messick (1999; Cates & Messick, 1996; Messick & Sentis, 1979) has concluded that whereas reactions to consequences (outcomes) tend to be egocentrically biased, rules (e.g., procedures) are evaluated objectively. These and other findings (for overviews, see Lind & Tyler, 1988; Thibaut & Walker, 1975; Tyler & Lind, 1992) suggest that reactions to procedures are affected by other-oriented considerations; that is, procedural fairness is not entirely or even largely egocentric. Research on survivors' justice judgments in corporate layoff situations shows that others' experiences can have very substantial effects on one's own evaluations of procedural justice (e.g., Brockner & Greenberg, 1990; Brockner et al., 1994; Skarlicki, Ellard, & Kelln, 1998; cf. Lerner & Somers, 1992).

On the other hand, there is evidence in at least one recent study of more self-oriented effects on perceptions of procedural fairness. Lind et al. (1998) report an investigation of how group members combine their own experiences with the reported experiences of others in the group to form justice judgments. Lind et al. had groups of three participants work separately on three consecutive tasks and then meet to discuss and rate their supervisor, who was supposedly another experimental participant but who was in fact a confederate. In the course of completing the three tasks, each participant had three e-mail interactions with the supervisor, with each experience either fair or unfair. The fair experience involved being allowed to voice concerns about work resources and to provide information relevant to one's evaluation by the supervisor; the unfair experience involved being denied voice on these issues. There were two conditions in the experiment: Either all three participants in the group were denied an opportunity to voice their opinion in one of the three rounds (and were allowed voice in the two other rounds) or one of the participants was denied a voice in all three rounds and the other two participants were allowed voice in all three rounds. In both conditions, the same total amount of unfair treatment occurred across the three-person group, but there was a difference in the distribution of unfair treatment: In the first condition, all three participants personally experienced mildly unfair treatment; in the second condition, one participant experienced a great deal of unfair treatment and the other two participants experienced no unfair treatment. Lind et al. (1998) predicted and found that group consensus ratings of the fairness of the supervisor were much more negative in the first than in the second condition. This suggests that mild personal experiences of injustice are a more potent source of perceived justice than are reports of more severe injustice experienced by others, a finding that suggests a self-oriented bias in the interpretation of justice experiences.

Examining the private responses of individual participants, Lind et al. (1998) found that there was evidence that the unjust experiences of others were considered and to a minor extent incorporated in the participants' own justice judgments, but at the same time, the experi-

ences of others were discounted, so that another's strong injustice had less impact than even a mild personally experienced injustice. Lind et al. (1998) note that their experiment was designed to begin the investigation of self- versus other-oriented effects on procedural justice judgments, and they admit that there are a number of possible explanations for the discounting of others' information that they observed. Of particular interest for the experiments reported here, Lind et al. (1998) note that the discounting of others' fairness experiences might not result from a self-interested ignoring of the plight of others but instead from normal attributional and cognitive discounting of reports that in fact might or might not be accurate. In other words, it might have been the case that had the participants experiencing mild or no injustice learned more directly about the experience of their badly treated colleagues, they would have had no hesitancy in incorporating the other's experience in their own assessments of justice.

In the two experiments reported below, the fair or unfair treatment of another participant was conveyed directly to the person making the fairness judgment so that information on the other's treatment was clear and direct. On the basis of the above-presented line of reasoning, we argued that if the Lind et al. (1998) results were due to attributional or communication issues, then we should see strong effects for others' treatment because the fairness or unfairness of the procedure is directly observable in our experiments. In contrast, if the Lind et al. (1998) results are due to a more fundamental self-oriented bias in incorporating others' unfair treatment into one's own justice judgments, then we should see weak or nonexistent effects for other's treatment.

In each of the experiments reported here, we manipulated the other's treatment by giving the other either a fair or an unfair procedure, and we manipulated the participant's own treatment using the same procedural variation. The two experiments differ in the particular procedural variation used: In Experiment 1, the procedure involved either more or less accurate evaluation procedures (cf. Vermunt, Wit, Van den Bos, & Lind, 1996); in Experiment 2, the procedure involved the provision or denial of voice (cf. Folger, 1977).

Each experiment also included a condition in which the participant received information on the other's procedure but did not know his or her own procedure. We included this condition because we felt that there was some likelihood that the impact of knowledge of others' treatment would differ depending on whether one knows which procedure one would receive oneself. Fairness heuristic theory predicts that less relevant fairness information is more likely to be used when more relevant fairness information is not available (Van den Bos, 1999; see also Van den Bos, Lind, & Wilke, in press; Van den Bos, Wilke, & Lind, 1998; Van den Bos, Wilke, Lind, & Vermunt, 1998). Van den Bos, Lind, Vermunt, and Wilke (1997), for example, showed that when information about outcome fairness is missing, people tend to rely on procedural fairness information—as heuristic substitutes—to assess how to judge their outcome. If this process works across people, as well as across justice dimensions, then information about another person's fair or unfair treatment should have more impact if one does not yet know whether one's own treatment will be fair. We predicted, therefore, that when participants did not know their own procedure, their reactions would be strongly affected by others' procedure.

## EXPERIMENT 1

### *Method*

*Participants and design.* Participants included 122 students (56 men and 66 women) at Leiden University who were paid for their participation (results reported here were not affected by gender of participants and therefore gender effects will not be discussed). Participants were randomly assigned to one of the conditions of the 3 (procedure experienced by participant: accurate vs. inaccurate vs. not yet known) × 2 (procedure experienced by other: accurate vs. inaccurate) factorial design. A minimum of 20 and a maximum of 21 participants took part in each of the six conditions.

*Experimental procedure.* Participants were invited to the laboratory to participate in a study on how people make estimations. After arriving at the laboratory, participants were led to separate cubicles, each of which contained a computer with a monitor and a keyboard. Next to the monitor, participants found a piece of paper and a pencil. Participants were told that the computers were connected to one another and that the experimenter could communicate with them by means of the computer network. The computers were used to present the stimulus information and to collect data on the dependent variables and the manipulation checks.

Participants were first informed that they would be participating in the experiment with another person, referred to as the "Other." The experimental procedure was then outlined to the participants: After the experimental tasks were explained, participants would practice the tasks, after which time they would work on the tasks. To increase participants' motivation, and in correspondence with Van den Bos, Lind, et al. (1997), participants were informed that after all participants were run, a lottery would be held among all participants. The winner of this lottery would receive 100 Dutch guilders. (Actually, after all participants had completed the experiment, the 100 Dutch guilders were randomly given to one participant; a procedure to which none of the participants

objected after debriefing.) Participants were told that a total of 200 lottery tickets would be divided among all participants. Furthermore, participants were told that after the work round, the experimenter would divide some lottery tickets between them and the Other. Five practice questions were posed to ensure comprehension of the lottery. If participants gave a wrong answer to a question, the correct answer was disclosed and main characteristics of the lottery were repeated.

Participants were then told that they would perform a work round in which they would complete an estimation task consisting of 20 estimation items. After the estimation items were explained, and before the work round started, they would practice the estimation task in a practice round, also consisting of 20 estimation items. The estimation items then were explained: For each estimation item, a figure would be presented on the computer screen. Participants were informed that each figure would consist of 180 squares and that each square would be either black or white. For each estimation item, a figure was presented for 5 seconds on the computer screen and participants had to estimate the number of black squares in the figure (cf. van den Bos, Vermunt, & Wilke, 1997).

After the estimation items were thoroughly explained to the participants, they performed the practice round (consisting of 20 estimation items). After the practice round had ended, participants were told that the computer program had calculated the deviation of their answers from the true, objective amount of black squares and were informed that an answer was graded as correct when the answer did not deviate by more than 5 from the actual number of black squares. The work round (consisting of 20 estimation items) then began.

After the work round, the procedure that was applied to the Other was manipulated. In the Other-accurate condition, the experimenter communicated to the participant, by means of the computer network, that the experimenter had graded all 20 of the Other's estimation items in the evaluation process (in reality, however, all stimulus information was preprogrammed). In the Other-inaccurate condition, participants were told that the experimenter had graded 1 of the 20 of the Other's estimation items.

The procedure that participants themselves received was then manipulated. In the self-accurate condition, participants were informed that the experimenter had graded all 20 of their estimation items. Participants in the self-inaccurate condition were told that the experimenter had graded 1 of their 20 estimation items. In the procedure self-not-yet-known condition, participants were informed that the experimenter had not decided yet how many of their estimation items would be graded.

Participants were then asked questions pertaining to the dependent variables and manipulation checks. All ratings were made on 7-point scales. Procedural fairness judgments were solicited by asking participants how fair they judged the way in which they and the Other had been treated (1 = *very unfair*, 7 = *very fair*). Procedural justice judgments were assessed by asking participants how just they considered the way in which they and the Other had been treated (1 = *very unjust*, 7 = *very just*). Procedure happiness was measured by asking participants how happy they were with the way they and the Other had been treated (1 = *very unhappy*, 7 = *very happy*). These three dependent variables were substantially correlated, $r$s > .68, $p$s < .001, and were averaged to form a reliable procedural judgments scale ($\alpha$ = .91). These measures, asking for overall evaluations of the participant's own and the Other's treatment, are similar to the overall fairness of supervisor ratings used in the Lind et al. (1998) experiment.

The manipulation of the procedure experienced by participants themselves was checked by asking participants how many of their estimation items had been graded (1 = *very little*, 4 = *I do not know yet how many of my estimation items will be graded*, 7 = *very many*). A manipulation check of the procedure of the Other asked the question of how many of the Other's estimation items had been graded (1 = *very little*, 7 = *very many*).

*Results*

*Manipulation checks.* A 3 × 2 analysis of variance (ANOVA) on the manipulation check of the procedure of participants themselves yielded only a main effect of self, $F(2, 116) = 2{,}534.96$, $p < .001$ (Other $F$s < 1.40, $p$s > .24). Results of a least significant difference test ($p < .05$) showed that the mean answers were significantly higher in the self-accurate conditions than in the self-not-yet-known conditions and that these last means differed significantly from the means in the self-inaccurate conditions; other differences between the six conditions of our 3 × 2 design were not significant. Inspection of the means indicated that participants in the self-accurate condition indicated that a very large number of their items were graded ($M = 7.0$), that participants in the procedure self-not-yet-known condition indicated that they did not know their procedure yet ($M = 3.9$), and that participants in the self-inaccurate conditions indicated that very few of their items were graded ($M = 1.1$).

A 3 × 2 ANOVA on the manipulation check of Other's procedure yielded only a main effect of Other, $F(1, 116) = 2{,}264.47$, $p < .001$ (Other $F$s < 1). Participants in the Other-accurate condition indicated that very many of the Other's items were graded ($M = 6.7$) and that participants in the Other-inaccurate condition indicated that very few of the Other's items were graded ($M = 1.0$). It

can be concluded that the independent variables were induced as intended.

*Procedural judgments.* The means of the procedural judgments scale of Experiment 1 are presented in the upper parts of Table 1. A 3 × 2 ANOVA on the procedural judgments scale (perceived fairness, justice, and happiness) yielded main effects of the participants' own procedure, $F(2, 116) = 5.81$, $p < .01$, and the Other's procedure, $F(1, 116) = 11.15$, $p < .01$. These main effects were qualified by a significant interaction effect, $F(2, 116) = 19.17$, $p < .001$.

To interpret these effects, we performed a least significant difference test for multiple comparisons between means on the procedural judgments scale ($p < .05$). Results of this test are presented in the upper parts of Table 1. The findings can be summarized as follows: When either the participant or the Other had received unfair process, fairness ratings were very low; when both the participant and the Other had received unfair treatment, the fairness ratings were a bit higher, significantly so in the comparison of the unfair Other/unfair self condition to the unfair Other/fair self condition. Furthermore, highest ratings were found when both the participant and the Other had received fair treatment. In addition, when the participant did not know his or her procedure, the Others' procedure did not have much effect on overall fairness ratings.

**TABLE 1: Mean Procedural Judgments in Experiments 1 and 2 as a Function of Procedure Participant Self and Procedure Other Participant**

*Experiment 1*

| | *Procedure Participant Self* | | |
|---|---|---|---|
| *Procedure Other Participant* | *Accurate* | *Inaccurate* | *Not Yet Known* |
| Accurate | $5.6_{a}$ | $3.1_{b, c}$ | $3.3_{b, c}$ |
| Inaccurate | $2.7_{c}$ | $3.7_{b}$ | $3.2_{b, c}$ |

*Experiment 2*

| | *Procedure Participant Self* | | |
|---|---|---|---|
| *Procedure Other Participant* | *Voice* | *No Voice* | *Not Yet Known* |
| Voice | $5.3_{a}$ | $3.3_{c}$ | $4.2_{b}$ |
| No voice | $3.0_{c}$ | $2.9_{c}$ | $2.7_{c}$ |

NOTE: For each experiment, means with no subscripts in common differ significantly, as indicated by least significant difference tests for multiple comparisons between means ($p < .05$). Comparisons were made only within each experiment, not across experiments.

### *Discussion*

The findings of Experiment 1 provide evidence for the proposition that people do consider the experiences and treatment of others when they form judgments of process fairness. Consider first the four cells in which the participants knew both their own treatment and that of the Other. Clearly, when the participants saw the Other being given unfair process, they gave relatively low fairness ratings, as they did when they received unfair process themselves. The participants also seemed to be sensitive to the unfairness implicit in unequal treatment, because they tended to give even lower fairness ratings when there was unequal treatment (i.e., in the unfair self/fair Other cell and especially in the fair self/unfair Other cell) than when everyone received unfair process.

The results when the participant did not know his or her own procedure are more ambiguous, perhaps because the situation itself is more ambiguous in these cells. In contrast with fairness heuristic theory predictions, there was no effect of the Other's procedure when the participant's own procedure was not yet known. This might be due to the nature of the procedure manipulation: Perhaps the procedural variation used in Experiment 1 (accurate vs. inaccurate evaluation procedures) was not strong enough to yield the effects of the fairness heuristic theory predicted in this condition. In Experiment 2, therefore, we conducted a similar experiment with a much more "sturdy" procedure manipulation, a manipulation that past research (e.g., LaTour, 1978) suggests is easily interpreted by observers: In Experiment 2, we used variations in voice (the most widely researched and arguably the most potent procedural dimension; see, e.g., Folger, 1977; Lind & Tyler, 1988) for our manipulations. We varied whether another participant did or did not receive an opportunity for voice (other-voice procedure vs. other-no-voice procedure) and whether participants themselves received voice (self-voice procedure), received no voice (self-no-voice procedure), or were not yet informed whether they would receive voice (procedure self-not-yet-known). The main dependent variables were the same as in Experiment 1.

## EXPERIMENT 2

### *Method*

*Participants and design.* Participants consisted of 129 students (45 men and 84 women) at Leiden University who were paid for their participation. Participants were randomly assigned in a 3 (participant self: voice vs. no voice vs. not yet known) × 2 (procedure other participant: voice vs. no voice) factorial design. A minimum of 19 and a maximum of 23 participants took part in the six conditions.

*Experimental procedure.* Participants were invited to the laboratory to participate in a study on how people perform tasks. After arriving at the laboratory, participants were led to separate cubicles, each of which contained a

computer with a monitor and a keyboard. Participants were told that the computers were interconnected and that the experimenter could communicate with them by means of the computer network. The computers were used to present the stimulus information and to collect data on the dependent variables and the manipulation checks.

The experimental procedure was the same as in Experiment 1, except for the below-mentioned points. Participants were first informed that after the experimental tasks were explained, they would practice the tasks for 2 minutes, after which time they would work on the tasks for 10 minutes. After this, participants were informed about the lottery, which was similar to the lottery of Experiment 1.

The task was explained to the participants. Figures would be presented on the upper right part of the computer screen. Each figure consisted of 36 squares, and each square showed one of eight distinct patterns. On the upper left side of the computer screen, one of the eight patterns would be presented, and participants had to count the number of squares with this pattern in the figure on the right side of the screen. When participants had indicated the correct number of patterns in the figure on the right side of the screen, another figure and another pattern would be presented on the screen. In both the practice round and the work round, the number of tasks that the participant had completed (i.e., the number of figures that the participant had counted) in the present round would be presented on the lower right side of the screen. On the lower left side of the screen, the time remaining in the present round was shown.

The practice round then began, after which the work round began. After the work round had ended, participants were told how many tasks they had completed in the work round; to try to ensure that participants compared themselves with the Other, it was communicated to the participant that the Other had completed an equivalent number of tasks. To assess whether participants thought of the Other as a person who was comparable in the amount of input he or she provided (cf. Van den Bos, Lind, et al., 1997), participants were asked to what extent the Other had performed well in the work round relative to the performance of the participant self (1 = *much worse*, 4 = *equally*, 7 = *much better*), to what extent the Other did his or her best in the work round relative to the participant self (1 = *much worse*, 4 = *equally*, 7 = *much better*), and to what extent the Other was good in performing the tasks in the work round relative to the participant self (1 = *much worse*, 4 = *equally*, 7 = *much better*).

Participants were then told that the experimenter would divide the lottery tickets between them and the Other. After this, participants were asked to think for 1 minute about the percentage of lottery tickets that they should receive relative to the Other and to write down this percentage on the piece of paper next to the computer.

The procedure that was applied to the Other was then manipulated. In the Other-voice condition, participants were informed that the Other received an opportunity to type in his or her opinion about the percentage of tickets that he or she should receive relative to the participant. In the Other-no-voice condition, participants were told that the Other would not be allowed to type in his or her opinion.

The procedure that participants themselves received was then manipulated. In the self-voice condition, the experimenter allegedly asked participants, by means of the computer network, to type in their opinion about the percentage of tickets that they should receive relative to Other. (In reality, however, all stimulus information was preprogrammed.) Participants in the self-no-voice condition were informed that they would not be asked to type their opinion about the percentage of tickets that they should receive relative to the Other. In the own-procedure-not-yet-known condition, participants were informed that the experimenter had not decided yet whether they should be allowed an opportunity to voice their opinion.

The participants were then told that they had received three lottery tickets (they were not informed about the number of tickets the Other received). After this, participants were asked questions pertaining to the dependent variables and manipulation checks. All ratings were made on 7-point scales. Procedural fairness judgments were solicited by asking participants how fair they judged the way in which they and the Other had been treated (1 = *very unfair*, 7 = *very fair*). Procedural justice judgments were assessed by asking participants how just they considered the way in which they and the Other had been treated (1 = *very unjust*, 7 = *very just*). Procedure happiness was measured by asking participants how happy they were with the way they and the Other had been treated (1 = *very unhappy*, 7 = *very happy*). These three dependent variables were substantially correlated, $r$s > .72, $p$s < .001, and were averaged to form a reliable procedural judgments scale ($\alpha$ = .92). The manipulation of the procedure of participants themselves was checked by asking participants whether they received an opportunity to voice their opinion about the percentage of tickets that they should receive relative to the Other (1 = *I did not receive such an opportunity*, 4 = *I do not know yet whether I will receive such an opportunity*, 7 = *I did receive such an opportunity*). As a manipulation check of the procedure of the Other, participants were asked whether the Other received an opportunity to voice his or her opinion about the percentage of tickets that the Other should receive relative to participants themselves (1 = *Other did not receive such an opportunity*, 4 = *Other does not know yet*

*whether he or she receives such an opportunity*, 7 = *Other did receive such an opportunity*).

*Results*

*Manipulation checks.* A 3 × 2 ANOVA on the manipulation check of the procedure of participants themselves yielded only a main effect of self, $F(2, 123) = 274.80$, $p < .001$ (Other $F$s < 1). Results of a least significant difference test ($p < .05$) showed that the mean answers were significantly higher in the voice conditions than in the not-yet-known conditions and that these last means differed significantly from the means in the no-voice conditions; other differences between the six conditions of our 3 × 2 design were not significant. Inspection of the means indicated that participants in the self-voice condition indicated that they received an opportunity to voice their opinion ($M = 6.9$), that participants in the procedure self-not-yet-known condition indicated that they did not know their procedure yet ($M = 3.9$), and that participants in the self-no-voice conditions indicated that they did not receive a voice opportunity ($M = 1.6$).

A 3 × 2 ANOVA on the manipulation check of the Other's procedure yielded only a main effect of Other, $F(1, 123) = 981.32$, $p < .001$ (Other $F$s < 1). Participants in the Other-voice condition indicated that the Other received an opportunity to voice his or her opinion ($M = 7.0$) and that participants in the Other-no-voice condition indicated that the Other received no such opportunity ($M = 1.4$). It can be concluded that the independent variables were induced as intended.

*Comparability measures.* A 3 × 2 multivariate analysis of variance (MANOVA) yielded no significant effects at both the multivariate level and the univariate levels. Inspection of the means indicated that our participants thought that the other participant had performed equally well in the work round ($M = 4.0$), had done equally his or her best in the work round ($M = 4.0$), and was equally good in performing the tasks ($M = 4.0$). Thus, in correspondence with our previous work (e.g., Van den Bos, Lind, et al., 1997), we can conclude that the participants thought of the other person as a comparable person with respect to the tasks that were completed in the experiment.

*Percentage findings.* A 3 × 2 ANOVA was performed on the percentages of lottery tickets that participants believed that they should get relative to the other participant and that they wrote down on the pieces of paper. This ANOVA yielded no significant effects. The grand mean percentage was 50.7% (the range of percentages participants wrote down was 45% to 100%).

Participants who were allowed voice also typed in their opinion about the percentage of tickets that they should receive relative to the other participant. An ANOVA indicated that independent of the procedure of the other participant, participants typed in that the lottery tickets should be divided equally between themselves and the other participant: Of the participants, 93% answered that they should get 50% of the tickets, and the mean answer was 51.9% (the range of percentages participants typed in was 50% to 95%). These findings are supportive of equity theory: Participants preferred to divide outcomes equally between themselves and the other participant (who contributed an equal amount of inputs and who hence deserved—according to equity theory—to receive the same amount of outputs as the participants themselves).

*Procedural judgments.* The means of the procedural judgments scale of Experiment 2 are presented in the lower parts of Table 1. A 3 × 2 ANOVA on the procedural judgments scale (perceived fairness, justice, and happiness) yielded main effects of participants' own procedure, $F(2, 123) = 7.91$, $p < .01$, and other participant's procedure, $F(1, 123) = 41.82$, $p < .001$. These main effects were qualified by a significant interaction effect, $F(2, 123) = 6.32$, $p < .01$.

To interpret these effects, we subsequently performed a least significant difference test for multiple comparisons between means on the procedural judgments scale ($p < .05$). Results of this test are presented in the lower part of Table 1. As in Experiment 1, when either the participant or the Other had received unfair process, fairness ratings were very low. Furthermore, highest ratings again were found when both the participant and the Other had received fair treatment. In Experiment 2, however, there was no indication that unfair process to both participants was seen as being any fairer than unfair process to either. More interesting, in Experiment 2, the findings showed that participants who were not yet informed about their own procedure were significantly affected by the other participant's procedure: These participants reacted more positively toward the dyad's procedure when the other participant received a voice opportunity than when the other participant received no such opportunity. It should be noted, however, that the effect of the Other's procedure was weaker in this condition than in the own-voice condition.

*Discussion*

In correspondence with Experiment 1, Experiment 2 revealed relatively strong other-oriented justice effects. The Other-unfair/self-fair cell showed as strong a judgment of procedural unfairness as did the self-unfair/Other-fair cell. In that respect, the findings of Experiment 2 replicated those of Experiment 1. Unlike Experiment 1, however, Experiment 2 did not show the modest enhancement of fairness in the condition where both

the participant and the Other were treated unfairly, and Experiment 2 did show an effect for the procedure given to the Other in the conditions where the participants did not know their own procedure.

## GENERAL DISCUSSION

These two experiments do a good deal to advance our understanding of how and when people use information about the treatment of others to derive their own impressions of the fairness of a procedure. In both experiments, knowing that another research participant had received an unfair procedure did as much to lower fairness judgments as did receiving an unfair procedure oneself. This finding can be contrasted with the finding of the Lind et al. (1998) experiment, which showed much more modest effects for the justice or injustice of another's procedural experience than for the justice or injustice of one's own procedural experience. Drawing conclusions on the basis of comparisons between studies is always problematic, of course, because we can only speculate what caused the differences between Lind et al.'s (1998) findings and the current findings. We suggest here that the difference is due to the fact that in the Lind et al. (1998) experiment, the Other's injustice was reported by the Other—the information was secondhand and potentially biased—whereas in the studies described here, the Other's injustice was reported directly by the experimenter. As Lind et al. (1998) noted, their results could be explained by a discounting effect triggered by the ambiguity of the target situation and the ambiguity of the communication channel. We tried to make these ambiguities less strong in our studies (and debriefing interviews indicated that we were successful in this). Given that our studies show strong Other-oriented effects, this suggests that ambiguity moderates Other-oriented effects. We hasten to note that because we did not manipulate ambiguity in the current experiments, future research is needed to manipulate and test the effects of ambiguity on Other-oriented effects.

The present findings are important for at least three reasons. The first reason is that procedural justice research has focused on how people react to their own treatment, but we know very little about how fairness judgments are affected by social interactions. However, it is likely that much of the information any individual person has about fairness and treatment issues comes not from personal experiences but instead from the broader collective experience of other people. The studies presented in the current article help to fill this important gap in the research literature.

The second reason is that the current studies extend the previous lines of research on reactions to others' procedural justice experiences in meaningful ways. The studies we report fill an important gap in the study of Other-oriented justice effects. We now have research studies in three of the four cells of a Personal Involvement × Direct/Indirect Information matrix. The Thibaut and Walker studies (see LaTour, 1978; Thibaut & Walker, 1975; Walker et al., 1979) explored the cell in which one has no personal involvement with another person's procedure but does have direct information about it. The Lind et al. (1998) study explored the cell where one does have personal involvement with a procedure but only indirect information about others' process and procedures. The current studies explore the cell where one has both personal involvement and direct information. The remaining cell, yet to be explored, is the cell where one has no personal involvement and only indirect information. It is reasonable to suppose that in the real world, Other-oriented justice effects arise in all of these contexts; therefore, the study of the psychology of social justice needs to consider them all, and we hope to have shown that the present studies take us one step further in that direction.

The third reason we think the current studies are important is that we think this type of research can do a great deal to deepen our understanding of the psychology of self-serving biases in justice judgments (cf. Messick & Sentis, 1979). As we noted at the outset, it is unclear whether the greater impact for personally experienced unfairness seen in studies such as that by Lind et al. (1998) is due to motivational (self-serving or self-interested biases) or informational (attributional) factors. Contrasting the present findings with those of the Lind et al. (1998) study, we are prompted to advance the hypothesis that certainty about whether a given procedure is fair or unfair is more important than whether the procedure is applied to oneself or another. Thus, if one experiences a procedure that is ambiguous with respect to its fairness, or if one experiences interpersonal treatment that seems unfair but that might be deserved, there is the possibility that the impact of these personal experiences on justice judgments is discounted in the same way that the Lind et al. (1998) participants discounted the justice experiences of their teammates. If this is indeed the case, it would give us a new, much more cognitive perspective on the way experiences are integrated to form justice judgments. Only future research in which the certainty or interpretability of fairness-relevant experiences is directly manipulated will tell us whether this suggestion is valid.

One implication of our findings may be that we need to direct our attention to some new theoretical issues. As we noted earlier, notwithstanding exceptions such as the studies by Lind et al. (1998), Brockner et al. (1994), Skarlicki et al. (1998), and Lerner and Somers (1992), the bulk of procedural justice research nowadays seems to focus on individuals' own experiences. For instance,

researchers typically tend to measure how individual employees react to their own experiences in corporate reorganization processes (for overviews, see Lind & Tyler, 1988). We hope that the current article points to the importance of exploring how and when employees pay attention to their coworkers' treatment.

The findings of our studies with respect to the predictions of fairness heuristic theory are less clear than those with respect to self- versus Other-oriented justice effects. There was little support for the theory's prediction that Other-oriented justice effects would be stronger when the participant did not know what procedure he or she would experience. In Experiment 1, there was no effect of the Other's procedure in the condition where the participant did not yet know his or her own procedure; in Experiment 2, there was an effect of the Other's procedure in this condition, but the effect was less strong than the effect of the Other's procedure in some of the other conditions. These results do not support fairness heuristic theory's predictions. In our opinion, there are two alternative conclusions that one might draw from these findings.

On one hand, the current studies suggest a boundary condition of fairness heuristic theory and the need to go beyond the present form of the theory. It might be the case, for example, that the tendency to seize on less relevant fairness information when more relevant information is not available for some reason does not apply to the interpretation of Others' fairness experiences. Thus, there might be simply two independent justice interpretation effects such that assessments of justice are influenced by information about another's treatment as a function of how clear the information about the Other's treatment is, rather than as a function of how unclear the existing information about one's own treatment is. This suggests that the processes fairness heuristic theory stipulates work better across justice dimensions (cf. van den Bos, 1999; van den Bos, Lind et al., 1997; van den Bos, Wilke, & Lind, 1998; van den Bos, Wilke, Lind et al., 1998) than across people. That would mean, of course, that fairness heuristic theory in its current form is a more limited explanation of fairness judgment processes than we had thought.

On the other hand, far more studies have yielded supportive evidence for fairness heuristic theory's predictions (cf. van den Bos, 1999; Van den Bos, Lind et al., 1997; van den Bos, Wilke, & Lind, 1998; van den Bos, Wilke, Lind et al., 1998) than there are studies that failed to support the theory. It may be premature, therefore, to conclude that the current findings revealed definitive problems with the theory. Clearly, what is needed are more studies examining this issue and doing so with designs that allow tests of this potential limitation.

Dependent variables in the experiments presented here were closely related to the procedural judgments reported in the Lind et al. (1998) study. In correspondence with Lind et al. (1998) and various other justice studies (for overviews, see Lind & Tyler, 1988; Tyler & Lind, 1992), we assessed participants' reactions by using dependent measures that were tightly linked to our manipulations of procedure (e.g., happiness with the procedure and justice of the procedure). This makes one wonder whether these dependent variables are too cognitive or removed in terms of effects on affective states. It should be noted, though, that we used experimental paradigms that have shown affective effects in other studies. van den Bos and Miedema (2000, Experiment 3; see also van den Bos, 2000, Experiment 4), for example, manipulated procedural accuracy, as we did in Experiment 1, and found that this manipulation had strong effects on participants' positive and negative affect ratings. These authors also reported experiments comparable with Experiment 2 and found that voice versus no-voice manipulations can have substantial effects on positive and negative affect states (see van den Bos, 2000, Experiments 1 and 3; van den Bos & Miedema, 2000, Experiments 1 and 2). Furthermore, note that the dependent variables reported here included one affect item (happiness with the procedure). Thus, although it may be debated whether the measures we used tap affective states sufficiently, there is research evidence that the paradigms and manipulations we used do affect this dimension of human reactions to unfairness.

Along the same line, because we have used well-known research paradigms here, we think there is a good chance that the effects we report can be generalized to contexts that matter to people. We know from debriefing interviews in these experiments and in other studies using similar methods that the participants took the tasks and context seriously and were involved affectively. More important, past research findings from experiments comparable with studies presented here (e.g., van den Bos, Lind et al., 1997; van den Bos, Wilke, & Lind, 1998) have been replicated in contexts that clearly matter to people and with independent and dependent variable operationalizations that are less salient than those used here (for details, see Skitka, 1998; Van den Bos, Van Schie, & Colenberg, 2000). In addition, the present experimental context is not too "obvious"; we know from past research that in the experimental paradigms used here, participants typically do not know what outcome to expect (for details, see van den Bos, Lind et al., 1997; van den Bos, Vermunt et al., 1997; van den Bos, Wilke, & Lind, 1998). Thus, our educated guess is that the findings reported here will generalize to contexts that matter to people, that saliency of psychological concepts helps but is not necessary to get the effects, and that people's

assumptions of what outcomes to expect will not explain the effects.

At the end of the day, though, there is one finding of these studies that promises to have enduring importance: Across both studies, we found Other-oriented justice effects that appear to be every bit as strong as were our self-oriented justice effects. This finding stands in sharp contrast to both the findings of the early Thibaut and Walker (1975) studies and the findings of the Lind et al. (1998) experiment, which suggested that seeing others treated unfairly somehow did not matter as much as being unfairly treated oneself. Although it may be the case that we are sometimes insensitive to the injustices of others in many real-world settings, the findings that are reported here show that that insensitivity is not insurmountable. There do exist at least some situations in which we can feel the pain of injustice as sharply when others experience it as when we experience it ourselves.

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